

Application No. 10/625,060
Art Unit 1774, Examiner Gray
Confirmation No. 8260
Docket No. CL-1833 US NA
October 29, 2007
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Remarks: General

The claims have been amended by rewriting Claim 11 to correct a typographical error.

A petition under 37 CFR §1.136 for a one-month extension of time to respond to the outstanding action is enclosed (October 28, 2007 being a Sunday), the fee for which should be charged to Deposit Account No. 04-1928 (E.I. du Pont de Nemours and Company).

By Applicant's calculation, no fee is due by reason of this amendment to the claims. If any fee other than or in addition to that mentioned specifically above is required to authorize or obtain consideration of this response, please charge such fee to Deposit Account No. 04-1928.

Claims 1, 3~6, 11~12 and 43~47 remain active in the application. Applicant hereby requests reconsideration and further examination of the application in view of the reasons it has set forth below for allowance of the claims.

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Remarks: Detailed Action

I.

In Item 3, the Examiner has rejected Claim 11 under 35 U.S.C. §112, second paragraph, as being indefinite in view of its dependency on Claim 10, which was previously cancelled. Claim 11 has been amended to recite dependency on Claim 1.

In view of the foregoing, Applicant respectfully requests that the Examiner withdraw the rejection of Claim 11 under 35 U.S.C. §112.

II.

In Item 5, the Examiner has rejected Claims 1, 3-6, 12 and 43-47 under 35 U.S.C. §103(a) as being unpatentable over WO 03/008680 ("Sen") in view of WO 93/15251 ("Gessner").

Applicant respectfully submits that the subject matter presently claimed is not obvious over a combination of Sen and Gessner because they do not teach or suggest a fiber that includes a segmented thermoplastic, elastomeric polymer and a thermoplastic, elastomeric propylene homopolymer wherein a propylene homopolymer is dispersed in a matrix of a segmented copolymer.

Sen discloses a bicomponent fiber of a core/sheath construction in which the core comprises a thermoplastic elastomer, and the sheath comprises an elastomeric polymer such as a homogeneously branched polyolefin. The core/sheath fiber of Sen does not teach or suggest Applicant's claimed fiber in which a propylene homopolymer is dispersed in a matrix of a segmented copolymer.

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Sen also discloses a biconstituent fiber in which one constituent comprises a thermoplastic elastomer, and the other constituent comprises an elastomeric polymer such as a homogeneously branched polyolefin. The structure of the biconstituent fiber of Sen is more particularly defined as being "a fiber comprising an intimate blend of at least two polymer constituents. The structure of the biconstituent fiber is an islands-in-the-sea construction." (Page 6 at Lines 21~23). To meet a condition in which at least part, preferably at least a major part, of the external surface of the biconstituent fiber comprises the more adhesive, or the lower melting, of the two materials from which the Sen fiber is made, it may be inferred that the "sea" portion of the islands-in-the-sea fiber is the lower melting Component B, which is typified in Sen (see page 7 at lines 15~24) by a homogeneously branched polyolefin that has a melting point at or below 110°C as measured by DSC. A polymer having a melting point at or below 110°C does not teach or suggest the presence of a propylene polymer that has an end of melting at about 160°C, as is contained in Applicant's fiber.

Where Gessner mentions, on page 11 for example, a blend of various kinds of copolymers with a thermoplastic polymer such as "polypropylene", there is no suggestion of selecting for such purpose the type of propylene homopolymer that is included in Applicant's fiber, or that the propylene homopolymer should be dispersed in a matrix of the segmented thermoplastic, elastomeric polymer.

The declaration of Bryan B. Sauer, one of the inventors in this application, is attached. In this declaration, Dr. Sauer notes that fibers having structural characteristics as described in the pending claims, i.e. that a thermoplastic, elastomeric propylene homopolymer is dispersed in a matrix of a segmented thermoplastic, elastomeric polymer, displayed superior performance when tested against a fiber having a contrasting type of structural arrangement.

More specifically, a fiber having a lower relative percent content of propylene homopolymer, as compared to percent content of segmented copolymer (Example 6), was tested for performance against a

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polymer made wholly from a propylene polymer or other type of thermoplastic olefin elastomer (Control G). The performance of the fiber of Example 6 was superior to that of Control G.

Dr. Sauer notes further that the performance of the fiber of Control G is an indicator of the expected performance of a fiber having a relatively higher percent content of a propylene polymer or other type of thermoplastic olefin elastomer in admixture with a segmented copolymer. In this connection, Dr. Sauer states that it would be expected that the performance of the fiber of Example 6 would be superior to that of Control G even if the composition from which the fiber of Control G were prepared contained a segmented copolymer in an amount of less than 50%.

From Dr. Sauer's comments, it may be inferred that fibers as claimed in this application would have superior performance when compared to that of fibers prepared from the same or similar components but in different structural configurations. That is, the fibers as claimed herein, wherein a propylene homopolymer is dispersed in a matrix of a segmented copolymer, would have superior performance when compared to a fiber having an opposed configuration in which a segmented copolymer is dispersed in a matrix of a propylene homopolymer.

Although Sen and Gessner mention fibers that may, in general, be prepared from similar components, those references either teach the opposite configuration from that which defines Applicant's claimed fiber, or teach no particular configuration at all. More specifically, neither the references alone nor the combination thereof contemplate, or provide any expectation, that superior performance results can be obtained by selecting the type of structural characteristics that define the claimed fiber, in which a propylene homopolymer is dispersed in a matrix of a segmented copolymer.


Remarks previously made of record are incorporated in their entirety as a part hereof for all purposes.

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In view of the foregoing, Applicant respectfully requests that the Examiner withdraw the rejection of the pending claims under 35 U.S.C. §103(a).

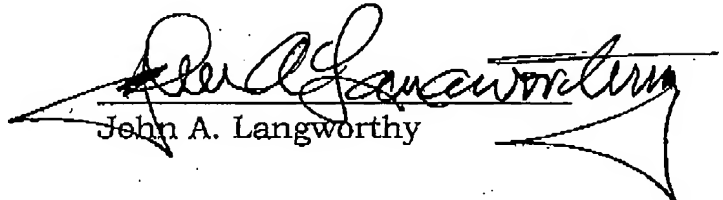
In view of the foregoing, Applicant submits that all of the Examiner's objections and rejections have been properly traversed, and that the pending claims are in condition for allowance, request for which is hereby respectfully made.

Respectfully submitted,


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I hereby certify that this correspondence is being facsimile transmitted to the U.S. Patent and Trademark Office on October 29, 2007.

Date: October 29, 2007


John A. Langworthy